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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,283	08/21/2001	Stephen O'Brien	3620/1F311US1	8609

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EXAMINER

OLSEN, ALLAN W

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/934,283

Applicant(s)

O'BRIEN, STEPHEN

Examiner

Allan Olsen

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11, 12, 18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 12, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

Claim 11 is objected to because of the following informalities: the preamble describes forming an etalon in which the transition regions between steps are “not parallel” to the opposing side. While this is not incorrect, it is noted that the original “abrupt” transition are, presumably, perpendicular to the opposing side and, as the body of the claim recites, the process is carried out so that the transition regions are not perpendicular to the opposing side.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 5,784,507 issued to Holm-Kennedy et al. (hereinafter, Holm-Kennedy).

Holm-Kennedy teaches using etching to fabricate a stepped etalon in which the transition regions between steps is not parallel to the opposing side. See figures 4, 11A, 18C; column 14, lines 36-38.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 12, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,015,976 issued to Hatakeyama et al. (hereinafter, Hatakeyama) in view of US Patent 5,293,548 issued to Siebert.

Hatakeyama teaches a method of making optical filters by directing an angled beam through a mask to etch the surface of the optical material. See, for example, the abstract and column 21, line 37.

Hatakeyama does not teach forming an optical filter (i.e., etalon) such that the transition regions between steps are not parallel to the opposing surface.

Siebert teaches forming a stepped etalon wherein the transition region between steps is not parallel to the opposing surface. See figures 6a and 6b; column 6, line 60 – column 7, line 3.

It would have been obvious to one skilled in the art to make the optical filter of Hatakeyama with a stepped surface wherein the transition region between steps is not abrupt and not parallel to the opposing side because Siebert teaches that such a profile reduces the discontinuity in the filter's dispersion.

Claims 11, 12, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,784,507 issued to Holm-Kennedy in view of Hatakeyama.

Holm-Kennedy teaches forming stepped etalons by etching. Holm-Kennedy teaches forming stepped etalons wherein the transition between the steps is not abrupt and the transition region is not parallel to the opposing surface. See figures 3A and 11A; column 13, lines 10-33

Holm-Kennedy does not teach the specifics with regard to the etching method.

Hatakeyama teaches a method of making optical filters by directing an angled beam through a mask to etch the surface of the optical material. See, for example, the abstract and column 21, line 37.

It would have been obvious to one skilled in the art to adopt the etching method of Hatakeyama to make the etalon of Holm-Kennedy because Holm-Kennedy does not provide any guidance with regard to the etching method and Hatakeyama teaches a method that is well suited to fabricate optical structures such as those taught by Holm-Kennedy.

Response to Arguments

Applicant's arguments filed July 6, 2004 have been fully considered but they are not persuasive. Applicant argues that Holm Kennedy does not teach a forming an etalon structure with a plurality of steps. The examiner notes that many of the Holm-Kennedy figures depict structures with multiple steps. For example, see fig 4 (wherein the sections depicted as 84 are gaps created by etching) and figures 18 b, 18c.

Regarding the 103 rejection over Hatakeyama and Siebert, applicant argues that Siebert is limited to teaching an etalon with parallel steps. However the examiner notes

that Siebert explicitly teaches tapering the surfaces to reduce the discontinuities between adjacent regions (column 7, lines 1-3).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Olsen whose telephone number is 571-272-1441. The examiner can normally be reached on M-F 1-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Mills can be reached on 571-272-1439. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Allan', written in a cursive style.

Allan Olsen
Primary Examiner
Art Unit 1763